

SOME NEW LARVAL FOOD PLANTS FOR NORTH QUEENSLAND LYCAENIDAE (LEPIDOPTERA)

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Abstract

Previously unrecorded larval food plants for sixteen species of lycaenid butterflies are described and reference is made to polyphagy in some ant-attended species.

Introduction

The following notes contribute previously unrecorded information on the larval food plants of sixteen species of lycaenid butterflies found in northern Queensland. In addition an earlier food plant misidentification is corrected.

Food plant records

Hypochrysops narcissus narcissus (Fabricius). Larvae have been reared from two species of mangrove at Yule Point, north of Cairns; *Ceriops tagal* (Rhizophoraceae) and *Aegiceras corniculatum* (Myrsinaceae). In each case the larvae were attended by small golden ants.

Hypochrysops pythias euclides Miskin. In an earlier account (Valentine and Johnson, 1981) the food plant of this species was considered to be *Triumfetta rhomboidea* (Tiliaceae) from a verbal description by Mr M. De Baar who originally described the larval stages in Australia (De Baar, 1979). Sands (1986) cast some doubt on the validity of *Triumfetta rhomboidea* as a food plant for *H. pythias*. Discussions with Dr Betsy Jackes at James Cook University indicated that *T. rhomboidea* is a coastal plant and would be unlikely to occur in rainforest areas where *H. pythias* flies. Subsequent identifications have shown that the plant on which we have reared *H. pythias* on numerous occasions is in fact *Commersonia bartramia* (Sterculiaceae). This is the same genus used by *H. pythias* in Papua New Guinea (D'Abrera, 1977).

Hypochrysops ignitus chrysonotus Grose-Smith. This species occurs on many hilltops from Townsville north and during July 1986 a small colony was found feeding on *Acacia holosericea* (Mimosaceae) at Mt Kulburn 20 km west of Townsville. Larvae occur commonly on *Planchonia careya* (Lecythidaceae) but have also been found on *Acacia flavescens* (Mimosaceae) and on *Tristania suaveolans* (Myrtaceae).

Pseudodipsas cephenes Hewitson. During February 1986 an adult female was noted flying around a shrub of *Guioa acutifolia* (Sapindaceae) at Bluewater State Forest about 40 km west north west from Townsville and larvae were found feeding on the foliage. Six eggs were collected on the woody stems and were subsequently reared in Townsville on *Smilax australis* leaves to produce three adults of this species and three of *P. eone iole* Waterhouse and Lyell. The larvae of the latter species pupated in about half the time it took the larvae of *P. cephenes*.

Arhopala centaurus centaurus (Fabricius). This species occurs very commonly in the Townsville district and larvae feed on a number of plant species previously unreported. A critical aspect seems to be the presence of green tree ants (*Oecophylla smaragdina*). Adults have been reared from the following plant species: *Terminalia melanocarpa*, *T. muelleri*, *T. sericocarpa* (Combretaceae); *Lagerstroemia speciosa* (Lythraceae) and *Dendrophthoe vitellina* (Loranthaceae).

Arhopala madytus Fruhstorfer. Although reared mainly from *Terminalia sericocarpa* it is occasionally found on *T. melanocarpa*.

Arhopala micale amphis. Waterhouse. Also on *Lagerstroemia speciosa*.

Hypolycaena phorbas phorbas (Fabricius). Already known to use many different food plants (see Common and Waterhouse, 1981). The following food plants are previously unrecorded: *Terminalia melanocarpa*, *Lumnitzera racemosa* (Combretaceae); *Syzygium wilsoni* (Myrtaceae); *Aegiceras corniculatum* (Myrsinaceae) and *Dendrophthoe vitellina* (Loranthaceae). Of particular interest is the discovery of the mistletoe food plant for this species and the two mangrove species (*Lumnitzera* and *Aegiceras*).

Rapala varuna simsoni (Miskin). A single larva of this species was successfully reared from flowers of *Dendrolobium umbellatum* (Fabaceae) in Townsville in February 1984. *Acacia polystachya* (Mimosaceae) is also used in Townsville.

Anthene seltuttus affinis (Waterhouse & Turner). Known to feed on many plant species (see Common and Waterhouse, 1981). The following four are newly recorded: *Brachychiton acerifolium* (Sterculiaceae); *Pongamia pinnata* (Fabaceae); *Syzygium wilsoni* (Myrtaceae) and *Lagerstroemia speciosa* (Lythraceae).

Anthene lycaenoides godeffroyi (Semper). This species has been reared in Townsville from the following new food plants: *Cassia auriculata*, *C. surattensis* (Caesalpinaceae); *Litchi chinensis* (Sapindaceae); *Dendrolobium umbellatum* (Fabaceae) and *Acacia polystachya* (Mimosaceae). As recorded in Common and Waterhouse (1981) and Valentine (1979) the larvae are usually attended by green tree ants (*Oecophylla smaragdina*) but in Townsville not uncommonly by the small black ant *Paratrechina bourbonica* (Forel).

Candalides helenita helenita (Semper). Larvae were found on *Glochidion ferdinandi* (Euphorbiaceae) southwest of Ingham in February 1986.

Nacaduba kurava parma Waterhouse & Lyell. Larvae were found on the flowers of *Maesa dependens* (Myrsinaceae) at Paluma in October 1983. In Brisbane the flowers of *Cupaniopsis anacardioides* (Sapindaceae) have been used (A. Johnson, pers. comm.).

Theclinessthes miskini eucalypti Sibatani & Grund. Larvae were found on *Acacia flavescens* (Mimosaceae) west of Paluma and on *Acacia holosericea* in Townsville during January 1987. In February 1984, larvae were found on *Sesbania* sp. (Fabaceae) also in Townsville.

Catochrysops panormus platissa (Herrich-Schaffer). This species was reared in Townsville during February 1984 on buds and flowers of *Dendrolobium umbellatum* (Fabaceae) in company with larvae of *Anthene lycaenoides*. *Freyeria trochylus putli* (Kollar). During April and May 1985 larvae were very common in Townsville feeding on *Indigofera colutea* (Fabaceae).

Discussion

One feature of particular note is the very wide range of food plants used by butterflies with larvae attended by green tree ants. As a general observation it seems that very many butterfly species with larval stages closely attended by ants are polyphagous. It may also be of interest to note that the record of mistletoe for *H. phorbas* and *A. centaurus* occurred on a *Lagerstroemia* cultivar. The larvae did not feed upon the foliage of this plant but remained on the mistletoe attended by numerous green tree ants.

Acknowledgements

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References

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BOOK REVIEW

A revision of the genus *Hypochrysops* C. & R. Felder (Lepidoptera: Lycaenidae). By D. P. A. Sands. *Entomograph* Vol. 7. 116 pages, illustr. 1986. E. J. Brill/Scandinavian Science Press. Netherlands. US\$38.25.

This revision of the systematics of the genus *Hypochrysops* C. & R. Felder is an impressive contribution to our knowledge of a regionally significant group of butterflies. The author includes 57 species in the genus arranged in 20 groups within which are recognized 110 distinct taxa. Descriptions are given of four new species and three new subspecies and twenty-eight names of species level are placed in new synonymy. The genus *Waigeum* Staudinger is synonymised with *Hypochrysops*. Separate keys are given for males and females of each species and testing the keys for Australian species I found them easy to follow and unambiguous. The only difficulty I experienced was with males of *H. cleon* from Iron Range where I initially ended up in *H. cleonides*! The female *cleon* I have from Iron Range keyed out easily. The male genitalia of all available species (fifty four of the fifty seven) are described and figured with a standard presentation of lateral view, sociuncus, valvae and aedeagus. In a number of instances subspecific variations in male genitalia are also illustrated.